Net photosynthetic CO2 assimilation: more than just CO2 and O2 reduction cycles

Titre	Net photosynthetic CO2 assimilation: more than just CO2 and O2 reduction cycles
Type de publication	Article de revue
Auteur	Tcherkez, Guillaume [1], Limami, Anis M. [2]
Editeur	Wiley
Type	Article scientifique dans une revue à comité de lecture
Année	2019
Langue	Anglais
Date	Juillet 2019
Numéro	2
Pagination	520-529
Volume	223
Titre de la revue	New Phytologist
ISSN	0028-646X
Mots-clés	anaplerosis [3], ethylene [4], nitrogen assimilation [5], photorespiration [6], photosynthesis [7], Respiration [8]
Résumé en anglais	Net photosynthetic assimilation in C3 plants is mostly viewed as a simple balance between CO2 fixation by Rubisco-catalyzed carboxylation and CO2 production by photorespiration (and to a lower extent, by day respiration) that can be easily manipulated during gas exchange experiments using the CO2 : O2 ratio of the environment. However, it now becomes clear that it is not so simple, because the photosynthetic response to gaseous conditions involves 'ancillary' metabolisms, even in the short-term. That is, carbon and nitrogen utilization by pathways other than the Calvin cycle and the photorespiratory cycle, as well as rapid signaling events, can influence the observed rate of net photosynthesis. The potential impact of such ancillary metabolisms is assessed as well as how it must be taken into account to avoid misinterpretation of photosynthetic CO2 response curves or low O2 effects in C3 leaves.
URL de la notice	http://okina.univ-angers.fr/publications/ua19758 [9]
DOI	10.1111/nph.15828 [10]
Lien vers le document	https://nph.onlinelibrary.wiley.com/doi/full/10.1111/nph.15828 [11]

Liens

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[2] http://okina.univ-angers.fr/m.limami/publications
[3] http://okina.univ-angers.fr/publications?f%5Bkeyword%5D=28676
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